RESULT OF THE WATER GAS.—It has long been conjectured that a universal mechanical power would sooner or later be obtained, either directly or indirectly, through the agency of that great binding chain of the universe, "electricity;" but hitherto the direct application of that agent on the one hand, and the reduction of water to its elements by it on the other, either from complexity or inefficiency, have failed. However, if the American water-gas be really the solid discovery they would have us believe, and if we can obtain the element with such facility and at such an insignificant cost,—if there be nothing hidden, nothing held in reserve, nor any practical difficulties in realizing unlimited volumes,—then, indeed, we have arrived at an epoch from whence will date one of the most grand achievements ever accomplished by practical science. For it is not the power of obtaining a mere gas light without the aid of coals that will result, though that is of vast importance; but we possess the means of acquiring an unlimited supply of "heat" universally in every region and clime, which, if not applicable to all, will be so, to most of our practical purposes, including our domestic, our manufacturing to a large extent, the propulsion of our railway trains, our steamships, &c., the consequences of which I need not enlarge upon; and hence, if there be any reliance to be placed on the American statements, we may congratulate ourselves that we have at length obtained indirectly a universal mechanical power, in addition to the means of heating and lighting our dwellings.—W. G.

THE WESLEYAN CHAPEL, built at Bilson, Dean Forest, at the sole expense of Mr. Aaron Goold, was opened on Friday, the 21st June. It is in the Decorated style, 54 feet long, 41 feet wide, and 46 feet high to the ridge of the roof. The west-end consists of a porch, with buttresses. The window over is a five-light, with a circular light of nine panels, on each side of the porch a three-light window, an octagon buttress and pinnacle at each corner. On the north and south sides five two-light windows and buttresses, and at the east-end a five-light window. All the windows vary in the tracery, and are glazed, the margins with stained glass and the inner parts with a cathedral glass, except the east window, which is all of stained glass, and in the centre compartment of west window is introduced a likeness of the venerable Wesley; an open roof of deal, with curved braces, and boarded, the whole to imitate oak; inclosed pews of deal-stained oak, and mahogany capping; the pulpit and altar-rail of oak. At the east-end is a school-room, 36 feet long, 22 feet wide, 11 feet high to the wall-plate, and 20 feet high to the ridge of roof. The whole is built of Forest stone, with Bath stone quoins, buttresses, pinnacles, windows, and cornice. Messrs. Jacques and Son, of Gloucester, were the architects.

IRON.—A patent for improvements in iron-pipe or tube manufacture has been taken out by Messrs. A. B. Cochrane and A. Slate, of Dudley, engineers: amongst other claims, are, a mode of guiding the internal pattern of moulds, so as to prevent unsteadiness in lifting; a mode of ramming in the sand, by inclosing the guide-rod in a rotating ramming-in tube; a mode of drying moulds, by hot air driven through cylinders within them; and a mode of coating cast-iron pipes with glass, with a composition of 130 parts flint-glass, 20 soda, and 12 boracic acid.——The Navy Commissioners and the East India Company's Finance Committee are about to enter into contracts for supplies of iron.——The union of wood with iron, alluded to in a previous note on the effect of shot on iron war-vessels, appears to have little influence in diminishing the deadly effect of fractured shot and splintered iron in "ball practice" on iron ships. Hollow shot, in particular, is shivered and scattered like shells, in every direction, when it strikes on iron sides or beams.——The ironmasters have resorted to a new move to prevent the anticipated further fall in prices. During the last three weeks they have put out of blast no less than twenty furnaces in the South Staffordshire and East Worcestershire districts, and the number is still on the increase, so that the reluctance to diminish wages has issued in a resolution, absolutely necessary, it may be, to take them away altogether. The work of mills and forges is also being further restricted. Prices, however, have scarcely been prevented from going further down, even by measures so severe, for it is admitted that the resolution to sustain previous prices has been met by "underselling," which just means, that prices have already shown more than a tendency to give way; and, on the whole, as observed by the *Morning Herald's* correspondent, "the transactions at the third meeting of the trade were characterized by anything but that animation which usually indicates a sound and healthy state of trade." Accounts, however, were satisfactorily settled with the masters. The nominal prices quoted in the interest of the trade itself, are:—Bar iron, 6*l.* per ton; rod and sheet, 8*l.*; pig, 2*l.* 15*s.* to 3*l.* 10*s.*, the latter best grey forge.

IMPOVEMENTS IN CUTTING METALS, STREET SWEEPING, &c.—A patent has been granted to J. Whitworth, of Manchester, engineer, for the adaptation to a turning-lathe of two or more tools acting simultaneously, and placed at different radial points of the work; secondly, for adding bottom and top slide rest to slide lathes, with separate traversing motion, as exemplified by drawing; thirdly, for improvements in slotting, shaping, planing, and similar machines receiving motion through a crank, by which the work passes more rapidly in one direction than another. As regards the street-sweeping machine, the peculiar arrangements described appear to adjust the pressure of the broom to the irregularities of the surface of the street, road, &c.

TESTIMONIAL TO MR. G. A. WALKER.—A subscription is being organized to present a suitable testimonial to Mr. G. A. Walker, in recognition of his almost single-handed fight during many years with the evils of intramural burial, and the ultimate success of his efforts. A meeting was held on the 10th inst. Lord Dudley Stuart, M.P. in the chair, when the initiatory steps were taken. We trust and have every reason to believe that the appeal will be generally and liberally responded to.

THE TWOPENNY DESECRATION OF ST. PAUL'S.—Mr. Hume proposes on going into committee of supply to move in the Commons that the regulations for restricting admission to St. Paul's are injurious to the cultivation of those feelings of veneration for religion and of respect for departed greatness which free access is calculated to inspire, and that, considering the result of free admission to Westminster Abbey, her Majesty be prayed to adopt such measures as may afford to the public free admission to St. Paul's and its monuments.

LEWISTON AND QUEENSTON SUSPENSION BRIDGE.—This bridge, which, when completed, will be by many feet the longest in the world, in one clear span, has recently been put under contract by the joint companies holding the charters from New York and British Governments. The bridge will connect the shores of the Niagara river at Lewiston, New York, and Queenston, Canada West, and will be 1,042 feet between the points of support; the roadway will be 75 feet above the water, 19 feet wide, and will be capable of sustaining a load of 800 tons. The towers of support are to be built of hydraulic masonry, surmounted with cast-iron caps, which are 76 feet above the roadway.—*American Railroad Journal.*

BRITISH MANUFACTURERS AND SCHOOLS OF DESIGN.—The manufacturers were continually crying out that the French and Germans, nay, even the supine Austrians, were excelling them in design and elegance of manufacture; and to supply the necessary defensive weapons English schools of design were instituted. For a time everybody was in raptures; but finding that the schools could not effect impossibilities, and that they really were not immense machines for evolving new *patterns* (the great manufacturing intellect not rising to *designs*), the schools were neglected, the old system of vamping up worn-out designs, worthless even when new, was again resorted to, and the nightmare of foreign competition *again* startles the English manufacturer from his lethargy. He does not stop to inquire the cause of the foreigners' success,—that they have employed schools of design for many years past, and have been content to wait till the art-education of the pupil was complete before they expected him to furnish them with complete designs, or to reflect that by employing the same means we may do more than our foreign rivals have done,—may carry our distress into their territory, and show that English workmanship, united to sound design, will carry the world's market before it. The mass of manufacturers will not move. They are ready to admit, theoretically, that the school does good to themselves, to their workmen, to the public,—but they will afford no help to extend the benefit. For their own sakes we intreat them to shake off this apathy. The position of the school is really precarious. The Government is willing to extend its grant, provided adequate local subscriptions are raised to meet it. Let, then, an effort be made. Let not a school bearing so closely on local manufacturing prosperity be the only institution ineffectively supported by our townsmen.—*Birmingham Gazette.*

TENDERS

For the New Market at Billingsgate. Mr. J. B. Bunning, architect.

Harrison	£9,785	0	0
Jay	9,763	0	0
Holland	9,736	0	0
Myers	8,959	0	0
Piper	8,840	0	0
Trego (accepted)	8,788	0	0

For the erection of a new Vicarage House at Leighton Buzzard, Beds. Mr. B. Brandon, architect.

Merry, Leighton	£1,015	5	7
Mead, do.	998	10	0
Hannell do.	995	0	0
Lumsden, London	980	0	0
Bremner, do. (accepted)	937	0	0

For rebuilding a Warehouse in Camomile-street, Bishopsgate. Mr. Moore, architect. The quantities were supplied.

Harding	£1,795	0	0
Piper	1,664	0	0
Ashley and Sons	1,363	0	0
Brown	1,325	0	0

[ADVERTISEMENT.]

A list of tenders for erecting the carcases of Two Shops and a Public House on Messrs. Overton and Hughes's Freehold Estate at Holloway:—

Tear	£481	0	0
Batterby	474	0	0
Hocken	468	10	0
Preston	460	0	0

[ADVERTISEMENT.]

Metropolitan Police-office, 4, Whitehall-place, June 29, 1850.

GENTLEMEN,—The Commissioners of Police of the metropolis have to acknowledge the receipt of your letter of the 24th inst., relative to the report you mention of the escape of the two prisoners from the cells in Marlborough-street, arising from the insecurity of "Chubb's Lock," and wishing to have the Commissioners' opinion of the matter.

The Commissioners beg to inclose a report from the superintendent of the division on the subject.

I am, Gentlemen, your obedient servant,

(Signed) RICHARD MAYNE.

Messrs. Chubb and Son,
57, St. Paul's Churchyard.

REPORT.

C. Division, June 26, 1850.

I have to report, in reference to the escape of the prisoner Hackett, on the 2nd of May, from the cell at the Police-court, Marlborough-street, that all persons who have examined the lock (one of Chubb's) are perfectly satisfied that he did not effect his escape by picking or forcing it. During his confinement in Newgate the same lock was fastened to a cell-door in the prison, but, after every facility was given to Hackett by the Governor, he could neither force nor pick it.

(Signed) CHARLES OTWAY, Superintendent.

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